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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR    | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|-------------------------|---------------------|------------------|
| 10/034,083      | 12/28/2001  | Alastair Michael Slater | 30008195-1          | 2185             |

7590 06/17/2005

HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER

THAI, TUAN V

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2186

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                      |  |
|------------------------------|--------------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/034,083 | <b>Applicant(s)</b><br>SLATER ET AL. |  |
|                              | <b>Examiner</b><br>Tuan V. Thai      | <b>Art Unit</b><br>2186              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 February 2005.
- 2a) ☐ This action is FINAL.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/28/01; 8/12/03; 02/02/04 & 2/28/05
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

PD

**Part III DETAILED ACTION**

***Specification***

1. This action is responsive to communication filed on September 01, 2004. Claims 1-23 are presented for examination.

2. Applicant is reminded of the duty to fully disclose information under 37 CFR 1.56.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-23 are rejected under 35 U.S.C. § 102(e) as being anticipated by Bolt (USPN: 6,725,394);

As per claim 1; Bolt teaches the invention as claimed including a system for managing a moveable media library (e.g.

see abstract), the system comprises at least one robotic mechanics is equivalently taught as loader mechanism for selectively moving a media storage unit between storage media slot and one of the plurality of data storage drives (e.g. see column 1, lines 30 et seq.; abstract, column 2, lines 24 et seq.); and a controller as being equivalent to library controller 146 (e.g. see figure 1, column 5, line 14), the controller 146 comprises a processor (CPU 25A; e.g. see column 12, lines 64) for executing instructions; and nonvolatile memory for storing code for controlling the robotic mechanics, code for responding to commands received from host systems to retrieve a moveable medium of a plurality of moveable media and code for responding is operable to receive the commands addressed with multiple device identifiers according to a device access protocol is equivalent taught as flash RAM 25C for storing program, program code and configuration storage (e.g. see column 12, lines 66-67), and the code for responding is operable to associate each device identifier of said multiple device identifiers with at least one respective library partition (e.g. see column 10, lines 4 et seq.);

As per claim 2, Bolt discloses the robotic mechanics is operable to retrieve a moveable medium of a plurality of moveable media and to place said moveable medium into one of a plurality of media elements as being equivalent to loader mechanism for selectively moving a media storage unit between storage media

slot and one of the plurality of data storage drives (e.g. see abstract, column 2, lines 24 et seq.); (e.g. see column 2, lines 24 et seq.);

As per claim 3, Bolt discloses the device access protocol is Fibre Channel and wherein said multiple device identifiers are Fibre Channel addresses (e.g. see column 10, lines 17 et seq.; figure 6A);

As per claim 4, Bolt further discloses that a Fibre Channel switch that is operable to route Fibre Channel packets addressed with said multiple device identifiers to the controller (e.g. see column 12, lines 42 et seq.);

As per claim 5, the further limitation of device access protocol is a Small Computer System Interface (SCSI) protocol (e.g. see column 9, lines 35 et seq.);

As per claim 6, Bolt discloses that multiple device identifiers are SCSI logical units (LUNs) (e.g. see column 6, lines 43-45); column 10, lines 11-14);

As per claim 7, the further limitation of the non-volatile memory further comprises code for accessing a resource mapping table that assigns library resources to a respective library partition is taught by Bolt since Bolt clearly discloses that flash RAM 25 C for storing program, program code and configuration storage (e.g. see column 12, lines 66-67);

As per claim 8, Bolt further discloses the resource mapping table is stored in said non-volatile memory; for example, Bolt

teaches that the address mapping is stored in persistent memory within the bridge 25 and used whenever the bridge 25 is powered on (e.g. see column 12, lines 55-59);

As per claim 9; the further limitation of the non-volatile memory further comprises code for identifying a respective virtual robotics mechanism peripheral in response to a device identification query addressed with each of multiple device identifiers pursuant to said device access protocol is taught by Bolt to the extent that it is being claimed; for example, first of all, it should be noted that Bolt discloses the library controller 146 configures the library 100 as a virtual library (e.g. see column 15, lines 44 et seq.) wherein the library 100 is managed and controlled by program codes and configuration data which are stored in the Flash RAM 25C (e.g. see column 12, lines 66 bridging column 13, line 1 et seq.);

As per claim 10, Bolt discloses a method for managing a moveable media library (e.g. see abstract), the method comprises assigning resources of said moveable media library to partitions/slots of a plurality of partitions (e.g. see column 2, lines 20); assigning at least one partition of said plurality of partitions to each communication medium identifier of a plurality of communication medium identifiers (e.g. see column 6, lines 39 et seq.); receiving a device access command, at a robotics controller, from a host system addressed with one of said plurality of communication identifiers (e.g. see column 6,

lines 48-56; column 7, lines 10-20); and determining a partition of said plurality of partitions utilizing said one of said plurality of communication medium identifiers (e.g. see column 7, lines 10-43).

As per claim 11, Bolt discloses the communication medium identifiers are Fibre Channel addresses (e.g. see column 12, lines 42-51).

As per claim 12, Bolt discloses plurality of communication medium identifiers are Small Computer System Interface (SCSI) identifiers (e.g. (e.g. see column 9, lines 35 et seq.);

As per claim 13, accessing a resource mapping table that assigns library resources to respective library partitions/slots is taught by Bolt since Bolt teaches that flash RAM 25 C for storing program, program code and configuration storage (mapping table) (e.g. see column 12, lines 66-67);

As per claim 14, Bolt further discloses the resource mapping table is stored in said non-volatile memory; for example, Bolt teaches that the address mapping is stored stored in persistent memory within the bridge 25 and used whenever the bridge 25 is powered on (e.g. see column 12, lines 55-59);

As per claim 15, the further limitation of generating a device identification response according to resources assigned to the determined partition of the plurality of partitions is taught by Bolt to the extent that it is being claimed; for example, Bolt discloses if the tape drive is ready to load (step

210), and the tape drive is operational (e.g., healthy) (step 212) then the library controller 146 follows normal command processing (wherein e.g. the CDB from the host system 12 is passed unaltered to the loader controller 144, and the response from the loader controller 144 is passed unaltered back to the host system 12 (e.g. see column 16, lines 5-14);

As per claim 16, wherein said device access command is a command to retrieve a virtual/logical moveable medium (e.g. see column 9, lines 3 et seq.; in addition, the further limitation of determining a physical moveable medium corresponding to said virtual moveable medium according to said determined partition (e.g. see column 9, lines 6-26).

As per claim 17, Bolt discloses a system for managing a tape library (e.g. see abstract) wherein the system comprising a robotics subsystem (tape cartridge loader) operable to retrieve tape cartridges and to place tape cartridges into tape elements/slots (e.g. see figure 1; column 1, lines 51 et seq.); a robotics controller having a processor for executing code is taught as the controller 146 comprises a processor (CPU 25A; e.g. see column 12, lines 64) for executing instructions; the further limitation of code for receiving a command to access a resource of the tape library, wherein said command is addressed with a communication medium identifier/SCSI ID (e.g. see column 10, lines 4 et seq.); code for determining a partition of a plurality of partitions utilizing said communication medium



identifier; and code for controlling said robotics subsystem utilizing at least said determined partition is equivalent taught as configuration data and program code stored within flash RAM 25C for carrying out the claimed function of managing partitions/slots in the data library (e.g. see column 12, lines 66-67; column 10, lines 4 et seq.);

As per claim 18, Bolt discloses the command to access a resource is received from a host system (e.g. see column 9, lines 3 et seq., the further limitation of code for determining whether said host system is authorized to access resources associated with the determined partition/slot is inherently taught by Bolt, for example; Bolt discloses that spare data storage drives which are masked from the host computer such the spare data storage drives are not directly accessible by the host computer (e.g. see abstract);

As per claim 19; Bolts discloses memory 25B being implemented as RAM for buffering I/O commands (including the same requests to access a same resource as being claimed) (e.g. see column 12, lines 65-66);

As per claim 20, a resource mapping table for mapping system resources to partitions of said plurality of partitions is equivalently taught by Bolt as the configuration storage for storing configuration mapping information within the flash ram 25C (e.g. see column 12, lines 66-67);

As per claim 21, the non-volatile memory is equivalently

taught as the persistent memory within the bridge 25 wherein the resource mapping table is stored in said non-volatile memory (flash RAM 25c) (e.g. see column 12, lines 55-59);

As per claim 22, Bolt further discloses that a Fibre Channel switch (Fibre Channel Bridge 25) that is operable to route Fibre Channel packets addressed with said multiple device identifiers (SCSI BUS:ID:LUN) to the library controller 146 (e.g. see column 12, lines 42 et seq.);

As per claim 23, Bolt discloses a controller as being equivalent to library controller 146 (e.g. see figures 1 and 2; column 5, line 14) for managing a moveable media library, the controller comprises a processor (CPU 25A; e.g. see column 12, lines 64) for executing instructions; and nonvolatile memory for storing code for controlling at least one robotic mechanics of a moveable media library, code for responding ... moveable media library which is operable to receive the commands addressed with multiple device identifiers according to a device access protocol, and the code for responding is operable to associate each device identifier of said multiple device identifiers with at least one respective library partition is equivalent taught as flash RAM 25C for storing program, program code and configuration storage (e.g. see column 12, lines 66-67), noting that Bolt also discloses associating each device identifier of the multiple device identifiers with at least one respective

library partition (e.g. see column 10, lines 4 et seq.);

### **Conclusion**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan V. Thai whose telephone number is (571)-272-4187. The examiner can normally be reached on from 6:30 A.M. to 4:00 P.M.

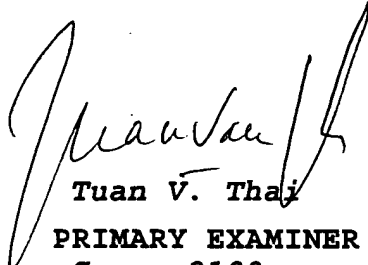
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew M. Kim can be reached on (571)-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Serial Number: 10/034,083  
Art Unit: 2186

-11-

**TVT**/June 07, 2005



Tuan V. Thai  
PRIMARY EXAMINER  
Group 2100